



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,888	09/01/2000	Thomas Anthony Cofino	YOR920000607US1	5996

7590

03/18/2003

Louis J Percello  
IBM Corporation  
Intellectual Property Law Dept  
P O Box 218  
Yorktown Heights, NY 10598

EXAMINER

RHODE JR, ROBERT E

ART UNIT

PAPER NUMBER

3625

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/653,888

Applicant(s)

COFINO ET AL.

Examiner

Rob Rhode

Art Unit

3625

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings filed on 09/01/2000 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance

### ***Specification***

The attempt to incorporate subject matter into this application by reference to US Patent Application xxxx entitled System and Method For Visually Analyzing Clickstream Data with a Parallel Coordinate System is improper because a specific application number was not provided.

Appropriate correction required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 - 19 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: For example, the preamble of claim 1 recites "A method of doing business", however the active method steps in the

Art Unit: 3625

body of the claim do not recite an active step – which moves to carry out the goal of the preamble. The recited steps merely provide the user with structure.

Claim 20 recites the limitation " develops and or updates the strategies for the Web design, marketing and merchandising " in line 1 and 2. There is insufficient antecedent basis for these limitations in the claims.

Claim 21 recites the limitation " the appearance of the web design or navigation paths of the online store and/or Web presentations of the store's marketing and merchandising efforts include advertisement banners or service layouts to reflect the development/update strategies based on the analysis results " in lines 1, 2, 3 and 4. There is insufficient antecedent basis for these limitations in the claims.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 of U.S. Patent No. 6,466,970 B1.

Art Unit: 3625

Although the conflicting claims are not identical, they are not patentably distinct from each other because each refers to method/process of providing a user with the ability to generate/derive a conversion/micro-conversion rate.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 2, 4 – 12 and 14 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig et al (US Patent 6,286,030 B1), in view of Yaginuma et al (US Patent 6,477,538 B2).**

Regarding Claim 1, Wenig discloses and teaches a method of doing business on a network comprising – providing a user with a means to extract one or more sessions from one or more Web server logs of one or more Web server systems of one or more online stores (Abstract and Col 3, lines 48 – 50) and (20) teaches where the user develops and/or updates the strategies for the Web design, marketing and merchandising based on the findings from the clickstream data visualizations (Abstract and Col 2, lines 1 – 2). In addition, Wenig discloses and teaches a method, (21) where the user adjusts and/or updates the appearance of the Web design or navigation paths of the online store and/or other Web presentations of the store's marketing and

Art Unit: 3625

merchandising efforts including advertisement banners and product or services layouts to reflect the developed/updated strategies based on the analysis results (Col 2, lines 1 – 2).

On the other hand, Wenig does not specifically disclose and teach the method of providing the user with a means to derive one or more micro-conversions from one or more sessions from one or more online stores; providing the user with a means to visualize clickstream data from one or more micro-conversions; providing the user with a means to interactively request one or more variations of the one or more clickstream data visualizations; providing the user with a means to interactively generate and view one or more variations of the one or more clickstream data visualizations upon the user's request; and providing the user with a means to store one or more generated clickstream data visualizations in one or more computer memories.

However, Yaginuma does disclose and teach a method of providing the user with a means to derive one or more micro-conversions from one or more sessions from one or more online stores (Col 3, lines 1 – 2, Col 13, lines 24 – 29 and Figures 4 – 6, 12 and 15); providing the user with a means to visualize clickstream data from one or more micro-conversions (Col 13, lines 30 – 32 and Figures 6 and 37); providing the user with a means to interactively request one or more variations of the one or more clickstream data visualizations (Col 14, lines 22 – 29 and Figures 33 and 40B); providing the user with a means to interactively generate and view one or more variations of the one or

Art Unit: 3625

more clickstream data visualizations upon the user's request (Col 14, Lines 22 - 29 and Figures 33 and 40B); and providing the user with a means to store one or more generated clickstream data visualizations in one or more computer memories (Col 1, lines 16 – 19, Col 6, lines 1 - 5 and Figure 52).

Regarding Claim 2, Yaginuma teaches a method, where the micro-conversion is a shopper's conversion from one shopping step to another for a particular product or service (Col 2, lines 30 – 37 and Figure 6).

Regarding Claim 4, Yaginuma teaches a method, where the clickstream data is a collection of micro-conversions of or more shoppers for one or more products and/or services sold in one or more online stores (Col 13, lines 24 – 29 and Figures 3 and 32).

Regarding Claim 5, Yaginuma teaches a method, where the visualization of clickstream data comprises a traditional parallel coordinate system and one or more extension components including one or more parallel axes of sequential events, one or more dependent variable values of timestamps, one or more dropouts of polygonal lines, one or more filters, one or more categorizers, and one or more hyperlink associations (Col 6, lines 40 – 67, Col 7, lines 1 – 2 and Figures 6, 12, 34, 45 and 49).

Regarding Claim 6. Yaginuma teaches a method, where the traditional parallel coordinate system is a parallel coordinate system comprising a series of parallel lines

Art Unit: 3625

that are placed equidistantly, each parallel line being assigned a specific dependent variable and dependent variable values being plotted along the respective axis, and an independent variable that is represented by polygonal lines connecting the corresponding dependent variable values and illustrating a relationship between an independent variable and the dependent variables appearing on each axis (Figures 6 and 45).

Regarding Claim 7, Yaginuma teaches a method where the parallel axes of sequential events is an assignment of a series of sequential events to parallel lines in a parallel coordinate system (Figures 5 and 6) and (8) where the sequential events include any one or more of the following: one or more steps of shopping in one or more stores, and one or more product or service development steps (Col 11, lines 17 –21 and Figures 10 and 12).

Regarding Claim 9, Yaginuma teaches a method where the dependent variable values of timestamps is an assignment of timestamp values as data points to a series of sequential events that are assigned to the equal number of parallel axes in a parallel coordinate system (Col 12, lines 23 – 30 and Figures 14 and 21).

Regarding Claim 10, Yaginuma teaches a method, where the dropout of a polygonal line is the disappearance of a polygonal line before the line reaches the last parallel axis



Art Unit: 3625

in a parallel coordinate system with the parallel axes of sequential events (Figures 32 and 35).

Regarding Claim 11, Yaginuma teaches a method, where the filter is a means to select and/or de-select one or more groups of polygonal lines viewed in a parallel coordinate system (Col 4, lines 50 – 57 and Figures 37 and 38).

Regarding Claim 12, Yaginuma teaches a method, where the categorizer is a parallel axis in a parallel coordinate system whose purpose is to categorize polygonal lines in the system (Col 6, 58 – 67, Col 7, lines 1 – 19 and Figures 6, 20 - 24).

Regarding Claim 14, Yaginuma teaches a method, where the hyperlink association is the association of one or more hyperlinks with the polygonal line representing a session, clicking on the polygonal line opens a Web page providing detail information of the session (Col 21, lines 20 – 27 and Figure 48B).

Regarding Claim 15, Yaginuma teaches a method, where the user can identify where the online store loses customers, and/or how many customers are lost, by looking at the dropouts of one or more polygonal lines in the clickstream data visualizations (Figures 37 and 38).

Regarding Claim 16, Yaginuma teaches a method, where the user can view one or more variations of the clickstream data visualization by selecting and/or deselecting one or more groups of sessions in the visualization by using one or more filters (Figure 37).

Regarding Claim 17, Yaginuma teaches a method, where the user can view one or more clickstream data visualizations for sessions of different shoppers categorized by one or more values of the categorizer axis (Col 21, lines 65 – 67 and Figures 6 and Figure 7).

Regarding Claim 18, Yaginuma teaches a method, where the user can view one or more Web pages providing detail information of one or more sessions by using one or more hyperlink association, i.e., by clicking on one or more polygonal lines representing one or more sessions (Col 21, lines 20 –27 and Figures 48B and 49).

Regarding Claim 19, Yaginuma teaches a method, where the user can store one or more snapshots of the clickstream data visualization of the online store, and later compare the stored snapshots of the visualization to understand the changes in the performance of the online store (Col 6, lines 1 – 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the method of Wenig with the method and system of Yaginuma to have provided the capability to provide a user with a means to extract one or more

Art Unit: 3625

sessions from one or more Web server logs of one or more Web server systems of one or more online stores and also providing the user with a means to derive one or more micro-conversions from one or more sessions from one or more online stores; providing the user with a means to visualize clickstream data from one or more micro-conversions; providing the user with a means to interactively request one or more variations of the one or more clickstream data visualizations; providing the user with a means to interactively generate and view one or more variations of the one or more clickstream data visualizations upon the user's request; and providing the user with a means to store one or more generated clickstream data visualizations in one or more computer memories – in order to enable the web site owner to more fully understand the areas/pages and processes which need to be improved. This understanding of where improvements are needed is important to pin pointing the enhancements for the site visitor/shopper experience and ease their review of information or purchase products as well as the selection process. In that regard, these improvements will increase customer satisfaction and increase the probability of the individual(s) returning to the site again to purchase or search for additional information.

**Claims 3 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig et al (US Patent 6,286,030 B1) and Yaginuma et al (US Patent 6,477,538 B2), and as applied to claims 2 and 12 respectively, and further in view of Hunt et al (US Patent 6,223,215 B1).**

Art Unit: 3625

The combination of Wenig and Yaginuma does disclose and teach a method providing the capability and means to extract one or more sessions from one or more Web server logs of one or more Web server systems of one or more online stores and also providing the user with a means to derive one or more micro-conversions from one or more sessions from one or more online stores; providing the user with a means to visualize clickstream data from one or more micro-conversions; providing the user with a means to interactively request one or more variations of the one or more clickstream data visualizations; providing the user with a means to interactively generate and view one or more variations of the one or more clickstream data visualizations upon the user's request; and providing the user with a means to store one or more generated clickstream data visualizations in one or more computer memories.

The combination of Wenig and Yaginuma does not specifically disclose and teach where the shopping steps include a product impression that is the view of a hyperlink to a Web page presenting a product or service, a clickthrough that is the click on the hyperlink and view of the Web page of the product or service, a basket placement that is the placement of the item in the shopping basket, and a purchase that is the purchase of the item and the completion of the transaction. Nor does the combination of Wenig and Yaginuma disclose and teach specifically where the categorizer includes one or more of the following: the referrer Web sites of sessions, the ISPs (Internet Service Providers) of sessions, the lengths of sessions, the methods used to find product information by sessions, the geographic regions where sessions come from, the ages,

sex, education levels, and income levels of the owners of sessions, the sales history of the owners of sessions, the Web page patterns accessed by sessions or by the owners of sessions, either or not ordered by session, or by time.

However and regarding Claim 3, Hunt teaches a method where the shopping steps include a product impression that is the view of a hyperlink to a Web page presenting a product or service, a clickthrough that is the click on the hyperlink and view of the Web page of the product or service, a basket placement that is the placement of the item in the shopping basket, and a purchase that is the purchase of the item and the completion of the transaction (Col 1, lines 51 – 52, Col 8, line 52, and Figure 2).

Regarding Claim 13, Hunt teaches a method where the categorizer includes one or more of the following: the referrer Web sites of sessions, the ISPs (Internet Service Providers) of sessions, the lengths of sessions, the methods used to find product information by sessions, the geographic regions where sessions come from, the ages, sex, education levels, and income levels of the owners of sessions, the sales history of the owners of sessions, the Web page patterns accessed by sessions or by the owners of sessions, either or not ordered by session, or by time (Col 2, lines 7 – 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Wenig and Yaginuma with the method and system of Hunt to provide the capability and method to where the shopping steps include a

Art Unit: 3625

product impression that is the view of a hyperlink to a Web page presenting a product or service, a clickthrough that is the click on the hyperlink and view of the Web page of the product or service, a basket placement that is the placement of the item in the shopping basket, and a purchase that is the purchase of the item and the completion of the transaction as well as teaches a method where the categorizer includes one or more of the following such as the referrer Web sites of sessions, the ISPs (Internet Service Providers) of sessions – in order to more fully understand both the origin of the shopper/visitor and to ensure that the on-line and off-line business processes fully support each shopper/visitors requirements. In this regard, the ease of purchasing is significantly increased providing the purchaser with a personal and pleasant experience thereby increasing their level of satisfaction with the site as well improving the probability that they will return again. Moreover, it would have provided a better understanding and targeting of advertisement campaigns.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art is Meade, II (US Patent 6,405,214 B1) that also addresses tracking and providing analysis relative to an individual's site session.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rhode whose telephone number is 703.305.8230. The examiner can normally be reached on M-F 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703.308.1344. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7658 for regular communications and 703.308.3687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.1113.

RER

March 10, 2003



Jeffrey A. Smith  
Primary Examiner